



45. Workshop Glaukom

Prof. Jens Ellrich, MD, PhD

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Standard of Care: IOP Management

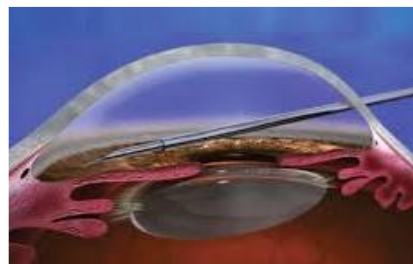
IOP management is necessary but not sufficient



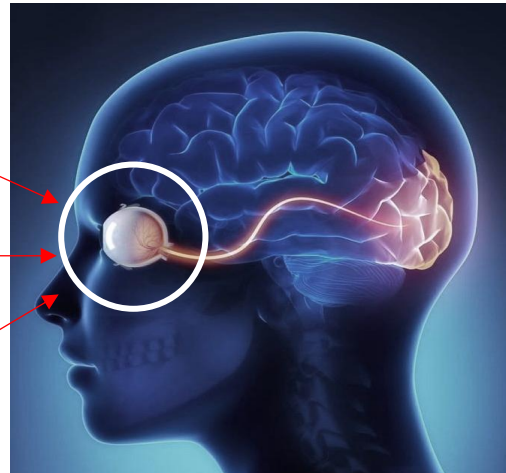
Drops



Surgery



MIGS



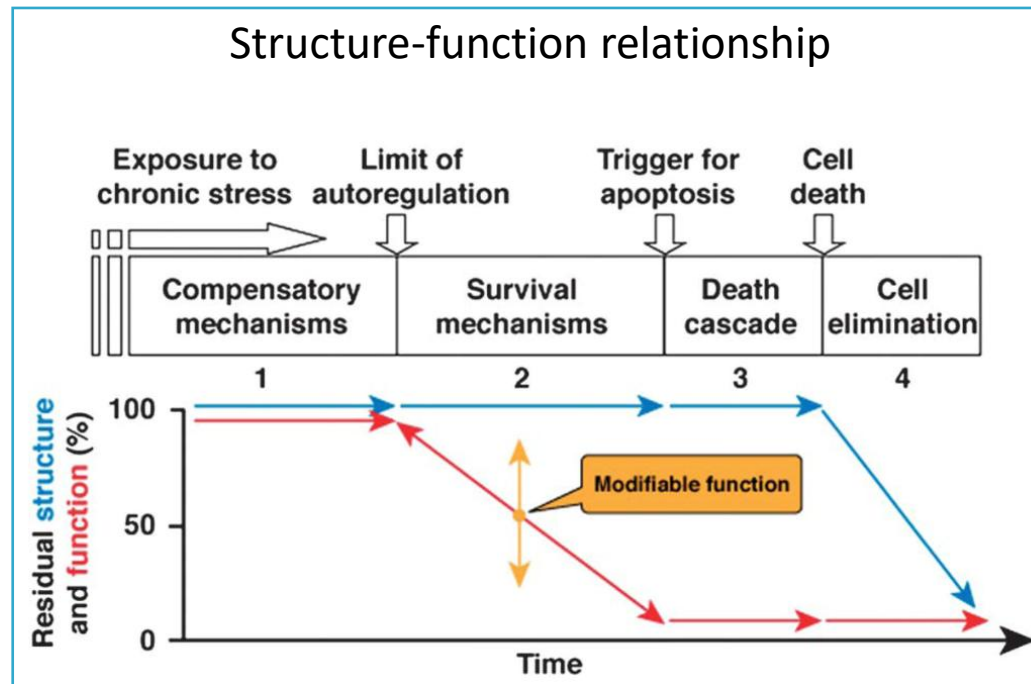
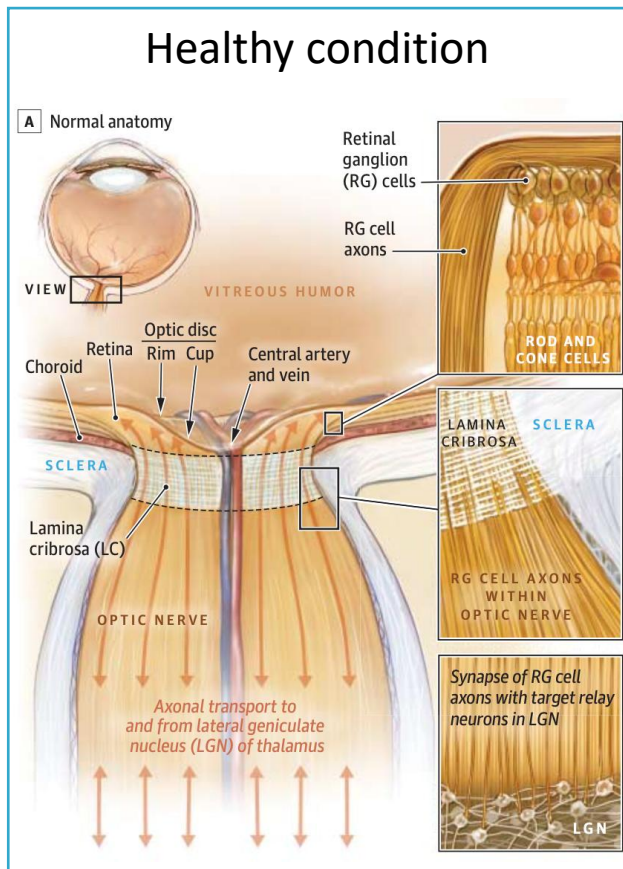
Patients continue to lose vision despite regulated IOP

30-40% of patients in Europe and the US have **no elevated IOP** and suffer from **Normal Tension Glaucoma (NTG)**

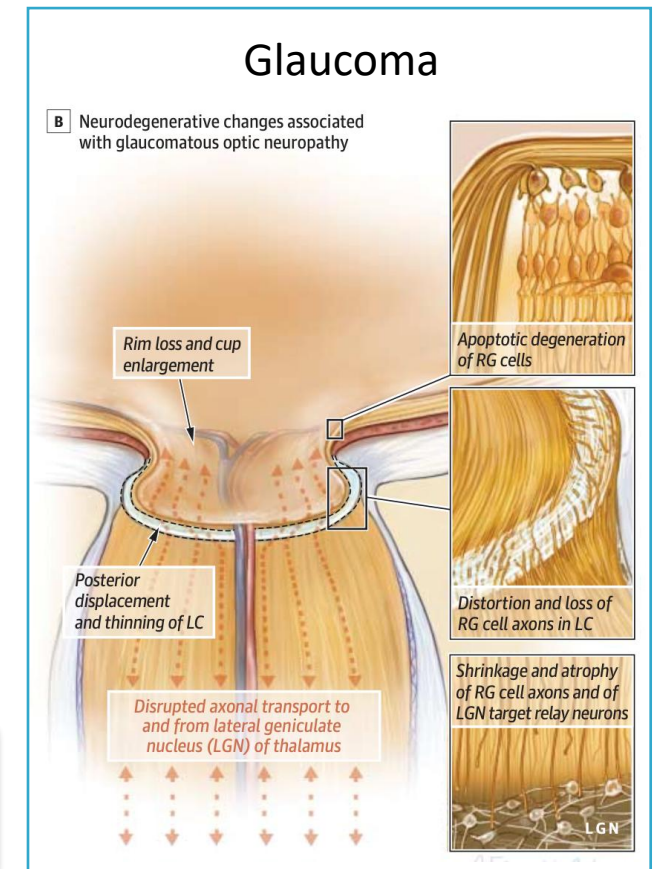
Glaucoma needs new treatment paradigms

Protection from apoptosis by neurostimulation eyetronic restoring vision

Chronic oxidative stress induces dysfunction (vision loss) and, finally, apoptosis (cell death).



Electrical stimulation of retinal ganglion cells and optic nerve axons is suggested to protect from apoptosis.



Effects of electrical Optic Nerve Stimulation

Mode-of-Action (preclinical)

Neurotrophic factors

↑ IGF-1, BDNF, CNTF, FGF-2; ↓ TNF- α

Immunomodulation

↑ IL-10; ↓ IL-6, COX-2, NF-kB

Glutamine synthetase ↑

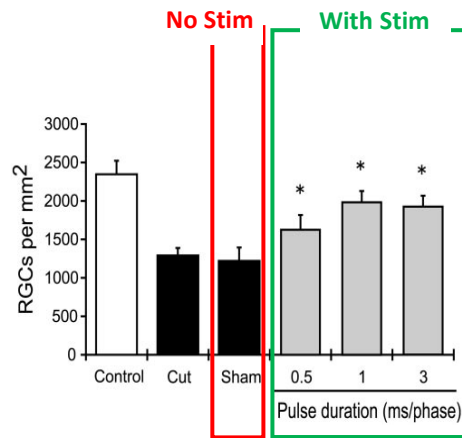
Intracellular Ca²⁺ ↑

Caspase 3 (↑)

Perfusion ↑

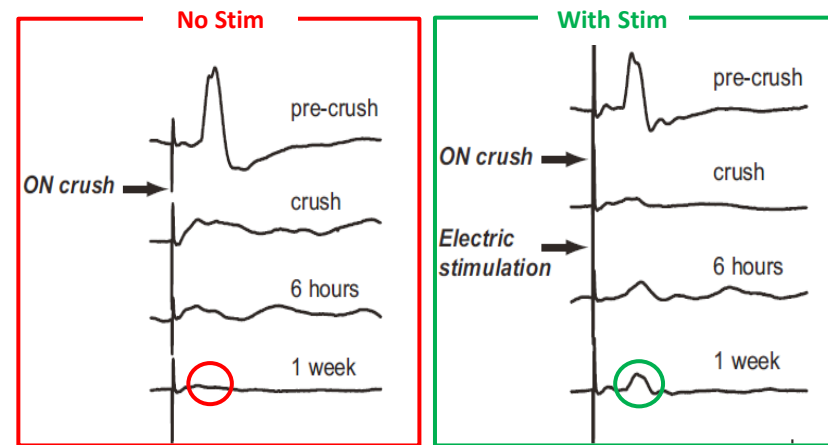
3 effects (preclinical)

Neuroprotection



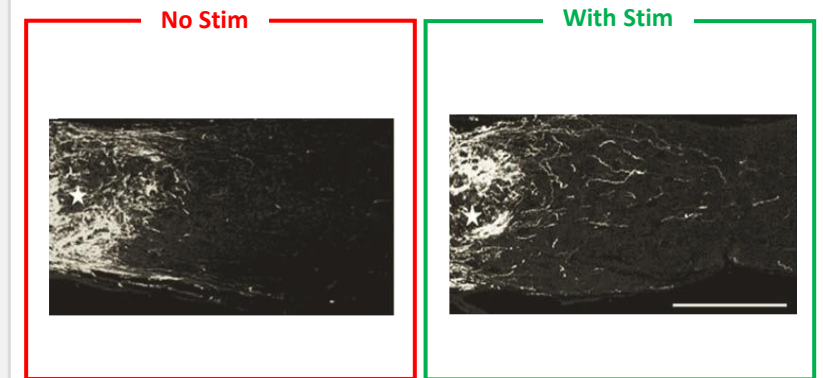
Survival of RGCs after transection

Functional Neurorestoration



Visually Evoked Potential (VEP) recovery after crush

Structural Neurorestoration

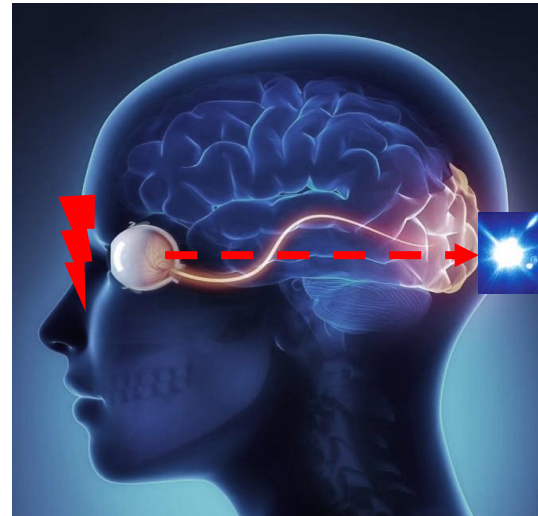


Axonal growth 12 days after crush

EYETRONIC® Optic Nerve Stimulation

Recovering retinal ganglion cells with electrical stimulation that drives neuronal activity

EYETRONIC®



Phosphenes as biomarker

Non-invasive

One cycle - 10 sessions

1.200 patients in 12.000 sessions

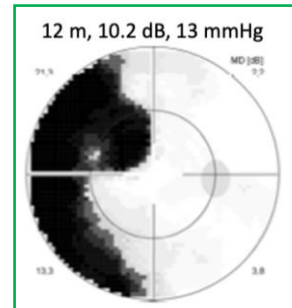
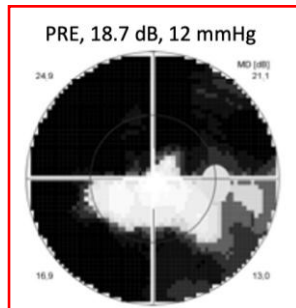
No SAE

Proven safety from 15 centers in Europe

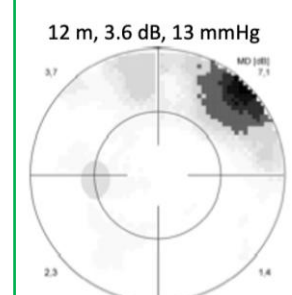
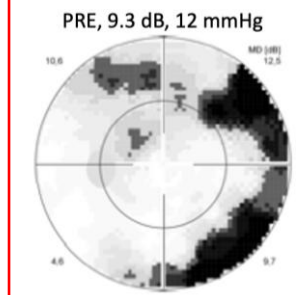
12-month PMCF data show halt of vision loss

Perimetries with MD, IOP values

Right eye



Left eye



Before ONS

12 months after

EYETRONIC Patient Experience



*„I experienced a **significant improvement** after the therapy and **regained** part of my **vision**. During the first year my VF continued to improve, **lasting till today.**“*

Germany



*„I can see colors more clearly now, see better in the distance, and **can recognize faces** better again. All of that I could no more do before the treatment.“*

Switzerland

EYETRONIC® - Restoring Vision



USA
Eyetronic Inc
17331 Newhope Street
CA 92708-4343 Fountain Valley
United States of America

Europe
Eyetronic GmbH
Rosa-Luxemburg-Straße 3
D-03044 Cottbus
Germany

e-mail: therapy@eyetronic.com